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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,077	12/14/2001	James L. Filson	353 USF	7531

23774 7590 06/12/2003

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EXAMINER
CINTINS, IVARS C

ART UNIT	PAPER NUMBER
1724	15

DATE MAILED: 06/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

A2-15

Office Action Summary

Application No.	Applicant(s)
10/017,077	Filson et al.
Examiner	**Art Unit**
Ivars Cintins	1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Apr 22, 2003*

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *12-15, 17-19, and 21-29* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideratio

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *12-15, 17-19, and 21-29* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examine

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 12
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

Claims 12-15, 17-19 and 21-29 are directed to an invention not patentably distinct from claims 12-14, 17-19, 21 and 22 of commonly assigned application Serial No. 10/001,543. Specifically, the claims of this application differ from those of application Serial No. 10/001,543 by the recitation of an ion exchange unit, instead of a precipitation unit, to remove metal (e.g. copper) ions from the carbon bed product stream. Tagashira et al. (U.S. Patent No. 4,070,281) teaches (see lines 7-10 of the abstract) that copper ions can be removed from an aqueous stream by either precipitation or ion exchange. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the ion exchange unit of Tagashira et al. for the precipitation unit recited in the claims of application Serial No. 10/001,543, since this ion exchange unit is capable of removing copper ions from an aqueous stream in substantially the same manner as the precipitation unit of application Serial No. 10/001,543, to produce substantially the same results.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302). Commonly assigned , discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly

assigned case qualifies as prior art under 35 U.S.C. 102(f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee is required under 37 CFR 1.78(c) and 35 U.S.C. 132 to either show that the conflicting inventions were commonly owned at the time the invention in this application was made or to name the prior inventor of the conflicting subject matter. Failure to comply with this requirement will result in a holding of abandonment of the application.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications filed on or after November 29, 1999.

Claims 12-15, 17-19 and 21-29 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 12-14, 17-19, 21 and 22 of copending application Serial No. 10/001,543 in view of Tagashira et al. As pointed out above, Tagashira et al. teaches that copper ions can be removed from an aqueous stream by either precipitation or ion exchange; and therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to substitute the ion exchange unit of Tagashira et al for the precipitation unit recited in the claims of application Serial No. 10/001,543, since this ion exchange unit is capable of removing copper ions from an aqueous stream in substantially the same manner as the precipitation unit of application Serial No. 10/001,543, to produce substantially the same results.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional

rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21-28 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 21-28 are incomplete because they fail to positively recite the presence of a carbon bed and an ion exchange unit. Applicant should note that the recitation "means for passing..." (claim 21, lines 9-10 and 16-17) merely requires some type of element (e.g. a pipe) for transporting a fluid from one location to another, but does not require either a carbon bed or an ion exchange unit. Applicant is advised that an amendment to claim 21, positively reciting the presence of these two essential elements (see claim 12, lines 9 and 15) would overcome this portion of the rejection.

Claim 29 is objected to because the terms "an carbon bed" (line 6) and "a ion exchange bed" (line 17) do not appear to be grammatically correct. Applicant should change "an carbon bed" to "a carbon bed" and should change "a ion exchange bed" to "an ion exchange bed."

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 12-15 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iida et al. (U.S. Patent No. 6,106,728) in view of Japanese Patent No. 6-121978. Iida et al. discloses a CMP unit in combination with a plurality of filters (col. 2, lines 9-18) and an ion exchange unit (col. 5, line 47-48). Accordingly, this primary reference discloses the claimed invention with the exception of the recited carbon bed. The Japanese patent teaches purifying wastewater from a printed circuit board washing operation with a combination of activated carbon and ion exchange resin (see lines 1-3 of the abstract). It would have been obvious to one of ordinary skill in the art at

the time the invention was made to provide the system of Iida et al. with the carbon bed of Japanese Patent No. 6-121978, in order to provide additional purification of the fluid undergoing treatment in this primary reference system. Applicant should note that composition of the wastewater intended to be treated is not a structural limitation, and hence cannot be given weight in determining patentability of apparatus claims 13-15 and 22-25.

Claims 17-19 and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iida et al. and Japanese Patent No. 6-121978 as applied above, and further in view of Katzakian et al. (U.S. Patent No. 3,928,192). The modified primary reference discloses the claimed invention with the exception of the type of ion exchange resin employed, and the recited regeneration means (claim 29). Katzakian et al. discloses (see col. 5, last line through col. 6, line 1) an ion exchange resin of the type recited; and further discloses regenerating this resin (see col. 12, lines 48-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the ion exchange resin of Katzakian et al. for the ion exchange resin of the modified primary reference, since this secondary reference ion exchange resin is capable of removing ions from wastewater in substantially the same manner as the ion exchange resin of the modified primary reference, to produce substantially

the same results. Also, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the modified primary reference with means to regenerate the ion exchange resin contained therein, as further taught by Katzakian et al., in order to enable this modified primary reference resin to be reused. Again, Applicant should note that the regenerant solution intended to be employed (i.e. hydrochloric acid) is not a structural limitation, and hence cannot be relied upon to distinguish apparatus claim 29. Moreover, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ resins having the bead size and uniformity coefficient recited in claims 19, 28 and 29 in the system of the modified primary reference, in order to promote contact between this resin and the liquid undergoing treatment in this modified primary reference system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to I. Cintins whose telephone number is (703) 308-3840. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Blaine Copenheaver, can be reached at (703) 308-1261.

The fax phone numbers for this art unit are: (703) 872-9311 for "Official" faxes after Final Rejection; (703) 872-9310 for all other "Official" faxes; and (703) 872-9492 for "Draft" and other "Unofficial" faxes.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Ivars Cintins

Ivars C. Cintins
Primary Examiner
Art Unit 1724

I. Cintins
June 10, 2003